

XX.—New Australian Hymenoptera of the Family Evaniidæ in the British Museum. By ROWLAND E. TURNER, F.Z.S., F.E.S.

*Evania sericans*, Westw.

*Evania sericans*, Westw. Trans. Ent. Soc. London, (2) i. p. 215 (1851).

Kieffer places this species in the section of the genus without spines on the hind tibiæ, probably because Westwood makes no mention of such spines; but the spines are really well developed. Though widely spread, the species seems to be uncommon.

*Hab.* Kuranda, Queensland (*Turner*), May 1913; Mackay, Queensland (*Turner*), March 1892; Victoria (*French*); Yallingup, S.W. Australia (*Turner*), December; Kalamunda, S.W. Australia (*Turner*), February 1914.

*Evania perfida*, Westw.

*Evania perfida*, Westw. Trans. Ent. Soc. London, (2) i. p. 216 (1851). ♂.

This is also erroneously placed by Kieffer in the section without spines on the hind tibiæ. Westwood states that his type came from Tasmania, but the specimen marked by him as *perfidu* in the British Museum, which is undoubtedly the type, is from S.W. Australia. I have taken it at Yallingup, and it also occurs at Adelaide.

*Pseudofænus cylindricus*, sp. n.

♀. Nigra, gracillima; mandibulis, apice excepto, testaceis; tibiis macula basali, tarsisque anticis intermediisque pallide flavo-brunneis; terebra, valvulisque apice pallide flavis; alis hyalinis, iridescentibus, venis fuscis, stigmatibus testaceo.

Long. 9 mm.; terebræ long. 1.5 mm.

♀. Second joint of the flagellum short, distinctly shorter than the first, the third half as long again as the second, the flagellum clothed with very short black hairs. Head very long and narrow, about four times as long as broad; the eyes elongate-ovate, separated from the hind margin of the head by a distance about half as great as their length; the anterior ocellus situated well behind a line joining the summit of the eyes; the hind margin of the head not carinate. Neck as long as the distance between the tegulæ and the anterior angle of the mesonotum. Thorax long and narrow, subcylindrical, the mesonotum rounded anteriorly;

parapsidal furrows very shallow and narrow, almost obsolete; scutum much longer than the scutellum; median segment with a longitudinal groove. Head and thorax opaque, without sculpture, the face below the antennæ finely punctured. Petiole 2-jointed, the basal portion formed by the first sternite very slender throughout, the apical portion fully half as long again as the basal, gradually widened towards the apex; second segment about equal in length to the basal portion of the petiole; tergites 2-5 much longer than broad. Terebra scarcely longer than the basal portion of the petiole, slender. Hind tibiæ strongly swollen; hind metatarsus nearly equal in length to the four apical tarsal joints; tarsal ungues small. Wings small and short, not reaching beyond the apex of the second tergite.

The male has the second and first joints of the flagellum equal, the third as long as the first and second combined.

*Hab.* Kalamunda, S.W. Australia (Turner), February 1914. Three females and one male. Easily distinguished by the long narrow head and thorax and short terebra. Not nearly related to the New Zealand group typical of the genus, but nearer to American species such as *angustatus*, Kieff. The species included in *Pseudofœnus* by Kieffer seem to fall into two groups, one, including the type of the genus, approaching *Hyptiogaster*, the other much nearer to *Fœnus*. The first group is confined to New Zealand.

*Pseudofœnus fluvialis*, sp. n.

♀. Nigra; mandibulis tegulisque testaceis; tibiis macula basali, tibiis anticis apice, tarsis anticis, metatarsisque intermediis posticisque albidis; terebra valvulisque nigris, apice albidis; alis hyalinis, iridescentibus, venis nigris, stigmato brunneo; terebra abdomine paullo brevior.

Long. 11 mm.; terebræ long. 6 mm.

♀. First joint of the flagellum very little longer than the second, the two combined distinctly shorter than the third. Head long and narrow; checks very short, almost obsolete; head feebly margined posteriorly, narrowed behind the eyes, which are separated from the hind margin of the head by a distance equal to about one-third of their own length. Anterior ocellus situated just in front of the line joining the summits of the eyes. Head and thorax opaque, without sculpture, clypeus finely and closely punctured. Neck as long as the distance between the tegulæ and the front of the mesonotum; parapsidal furrows narrow, but distinct, finely crenulate; mesonotum rounded anteriorly, scutum as

long as the scutellum. Median segment very delicately rugulose, with a low longitudinal carina, hind coxæ finely granulate. Abdomen long and slender, the first tergite twice as long as the second. Hind metatarsus as long as the four apical tarsal joints; tarsal ungues small.

*Hab.* Perth, W. Australia (*Turner*), February. Two females taken on blossom of *Eucalyptus calophylla* in King's Park.

This is much nearer to the Mexican species, *P. angustatus*, Kieff., than to *P. cylindricus*, but differs in the sculpture of the thorax, the shape of the head, and other details. Kieffer gives two species of *Pseudofænus* as Australian, but *P. unguiculatus*, Westw., is from New Zealand, and *darwinii*, Westw., belongs to *Hyptiogaster*.

*Pseudofænus isthmalis*, sp. n.

♀. Nigra; mandibulis fuscis; palpis pallidis; tibiis anticis intermediiisque supra, metatarsis anticis intermediiisque, tarsis anticis articulo secundo, tarsis posticis, basi extrema articuloque apicali nigris, valvulisque terebræ tertio apicali albidis; pleuris sternoque hic illic nigro suffusis, coxis, trochanteribus, femoribusque anticis ferrugineis; tibiis posticis basi infra albo-maculatis; alis hyalinis, leviter suffusis, iridescentibus, stigmatibus venisque nigris; terebra corpore vix brevior.

Long. 10 mm.; terebræ long. 9 mm.

♀. First joint of the flagellum as broad as long, half as long as the second, third fully as long as the first and second combined. Head long and narrow, feebly margined and rather strongly emarginate on the hind margin; front convex, subcarinate longitudinally in the middle; cheeks almost obsolete. Anterior ocellus almost on a level with the summit of the eyes, which are separated from the hind margin of the head by a distance equal to slightly more than one-third of their own length. Head opaque, finely coriaceous. Neck nearly as long as the distance between the tegula and the front of the mesonotum; thorax opaque, very delicately rugulose, mesonotum with the anterior margin straight, only rounded at the angles, with two short impressed longitudinal lines from near the middle of the anterior margin; parapsidal furrows distinct, crenulated; scutum longer than the scutellum, præscutum much longer than the scutum. Median segment with a distinct longitudinal carina, transversely rugulose. First abdominal segment twice as long as the second. Hind metatarsus as long as the four apical tarsal joints; tarsal ungues small.

*Hab.* Eaglehawk Neck, S.E. Tasmania (*Turner*), February 1913. One female.

Differs from *fluviulis* in the proportion of the antennal joints, the shape of the head, the sculpture of the thorax and median segment, the length of the terebra, in colour, and other details.

*Fenus autumnalis*, sp. n.

♀. Nigra; mandibulis apice excepto, tegulis, pedibusque anticis intermediisque ferrugineis; tibiis anticis intermediisque supra, tibiis posticis macula basali, tarsis anticis, tarsis intermediis articulis tribus basalibus, tarsisque posticis, basi apiceque exceptis, albis; terebra, petiolo multo brevior, testacea; valvulis apice albidis, incrassatis; alis hyalinis, venis fuscis; stigmatibus pallido, fusco-marginato.

Long. 14 mm.; terebræ long. 2.5 mm.

♀. Head opaque, somewhat elongate, slightly swollen behind the eyes, the hind margin distinctly carinate. Eyes separated from the hind margin of the head by a distance equal to about one-third of their own length; posterior ocelli level with the summit of the eyes, twice as far from each other as from the eyes; cheeks very short, not half as long as the first joint of the flagellum; a longitudinal carina between the antennæ. Second joint of the flagellum more than half as long again as the first, the third joint distinctly longer than the first and second combined. Neck short; pronotum with a very short and small spine at each angle; mesonotum opaque, coriaceous, with two very short longitudinal impressed lines from the anterior margin; scutellum with well-defined marginal carinæ; median segment rather coarsely rugose-reticulate, with a rather indistinct median carina; hind coxæ coriaceous. Hind metatarsus no longer than the four apical tarsal joints combined, the basal third black, the apical half of the fifth tarsal joint also black. Terebra scarcely half as long as the petiole.

*Hab.* Kalamunda, S.W. Australia (*Turner*), March 1914. Four females.

Closely allied to *valvularis*, Schlett., but differs in the lesser development of the angles of the pronotum, in the sculpture of the median segment, and in the shorter cheeks. *F. fuscimanus*, Kieff., has the terebra distinctly longer, the cheeks longer, and the sculpture of the thorax rather stronger; and *F. valens*, Kieff., is a much larger insect, more robust, with the sculpture of the median segment tending to transverse striæ and the coxæ black.

*Fœnus exilis*, sp. n.

♀. Nigra, minuta; mandibulis tegulisque testaceis; tibiis anticis intermediisque, tibiis posticis basi, tarsis anticis intermediisque, tarsisque posticis subtus pallide brunneis; terebra, petiolo multo brevior, testacea; valvulis apice albidis; alis hyalinis, iridescentibus, venis fuscis, stigmatibus fusco-ferrugineo.

Long. 7 mm.; terebræ long. 1.5 mm.

♀. Head elongate, opaque, the hind margin very feebly carinate. Eyes separated from the hind margin of the head by a distance equal to half their own length; anterior ocellus situated a little behind a line joining the summit of the eyes; cheeks very short, not as long as the first joint of the flagellum; a low carina running from between the antennæ nearly halfway to the anterior ocellus. First joint of the flagellum scarcely longer than broad, second scarcely half as long again as the first, third distinctly longer than the first and second combined. Neck rather short, angles of the pronotum unarmed; mesonotum opaque, very finely coriaceous, with two short, obscure, longitudinal raised lines from the anterior margin, the curved line separating the præscutum and scutum very shallow and not crenulate. Scutellum without marginal carinæ; median segment irregularly transversely rugulose; hind coxæ very finely coriaceous. Terebra more than half as long as the petiole; hind metatarsus as long as the four apical tarsal joints combined.

*Hab.* Mt. Wellington, Tasmania, 2200 ft. (*Turner*), January 1913. One female.

This is not nearly allied to the group of *valvularis*, Schlett., having the head slightly narrowed behind the eyes, the scutellum without carinæ, and the groove between the scutum and præscutum narrow and not crenulate.

*Fœnus steindachneri*, Schlett.

*Gasteruption steindachneri*, Schlett. Verh. zool.-bot. Ges. Wien, xxxv. p. 300 (1885). ♀.

*Hab.* Mt. Wellington, Tasmania, 2200 ft. (*Turner*). March.

*F. leptotrachelus*, Kieff., is very near this, but cannot be the male of this species, having the head much more strongly narrowed behind the eyes.

*Fœnus macrocephalus*, sp. n.

♀. Maxima, nigra; tibiis anticis intermediisque supra, tarsis

anticis intermediisque apice infuscatis, tarsisque posticis, metatarso tertio basali articuloque quinto exceptis, albidis; terebra, corpore sesqui longiore, testacea, valvulis apice extremo albidis; alis hyalinis.

Long. 30 mm.; terebræ long. 45 mm.

♀. Head opaque, finely coriaceous, massive, slightly swollen behind the eyes, the hind margin rather feebly carinated. Eyes separated from the hind margin of the head by a distance equal to fully half their own length; posterior ocelli in a line with the summit of the eyes, fully half as far again from each other as from the eyes. Checks as long as the first joint of the flagellum; a longitudinal carina between the antennæ. Second joint of the flagellum twice as long as the first, third nearly half as long again as the first and second combined. Neck very short; angles of the pronotum unarmed. Thorax opaque, coriaceous, the sides of the præscutum with fine transverse striæ; præscutum nearly twice as long as the scutum, with two short slightly raised lines converging from the anterior margin; the curved line dividing the scutum and præscutum broad and crenulated. Median segment irregularly transversely rugose-striate, with an indistinct median carina; hind coxæ shining, punctured at the base, finely transversely striated at the apex; hind metatarsus about equal in length to the four apical tarsal joints; the fifth joint long, about equal to the second. Pleuræ finely rugose; mesosternum coarsely transversely striated, the sides of the median segment also coarsely striated.

*Hab.* Victoria (ex coll. Turner, received through C. French).

This is the largest species of the genus known to me. The head and thorax, especially on the sides, are clothed with very short white pubescence, as in *F. breviscutum*, Kieff. The radius is bent into a sharp angle at about two-thirds from its base, as in all the group of *breviscutum*.

#### *Fœnus calothecus*, Kieff.

*Gasteruption calothecus*, Kieff. Ann. Soc. Ent. France, lxxx. p. 198 (1911). ♀.

Specimens of this species from Yallingup, S.W. Australia, are larger than the type, measuring up to 22 mm., with the terebra 60 mm., but do not seem to differ appreciably in colour or structure. The type is from Queensland; the cotype has been labelled Mexico, evidently by mistake.

*Fœnus bicarinatus*, sp. n.

♀. Nigra; mandibulis basi, pedibusque anticis fusco-ferrugineis; tibiis anticis intermediisque supra, tarsis anticis intermediisque apice infuscatis, tarsisque posticis, metatarsi tertio basali articuloque quinto exceptis, albidis; terebra rufo-testacea abdomine paullo longiore, valvulis apice flavidulis et dilatatis.

Long. 22 mm.; terebræ long. 15 mm.

♀. Head not very strongly narrowed behind the eyes, slightly swollen transversely behind the ocelli, opaque and coriaceous, the hind margin distinctly carinated. Eyes separated from the hind margin of the head by a distance equal to nearly half their own length; posterior ocelli in a line with the summit of the eyes, twice as far from each other as from the eyes. Cheeks half as long again as the first joint of the flagellum, a longitudinal carina between the antennæ, the front depressed on each side above the base of the antennæ; second joint of the flagellum twice as long as the first, third more than half as long again as the first and second combined. Neck rather short; angles of the pronotum almost unarmed. Mesonotum irregularly transversely rugose-striate; with two longitudinal carinæ from near the middle of the anterior margin not reaching the middle of the præscutum, the space between the carinæ transversely striated and deeply depressed. Pleuræ rugose; median segment rather coarsely rugose, convex, with a longitudinal carina, the sides of the segment above the hind coxæ with a few coarse striæ. Hind coxæ shining, rather indistinctly transversely striated. Hind metatarsus as long as the four apical tarsal joints combined. Radius sharply bent upwards towards the costa at about two-thirds from the base, as in *breviscutum* and other allied species.

*Hab.* Swan River, Western Australia.

Easily distinguished by the strong carinæ on the mesonotum.

XXI.—A revised Classification of the Otomyinæ, with Descriptions of new Genera and Species. By OLDFIELD THOMAS.

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THE very striking cranial and dental characters found among the different species of what has hitherto been considered the single genus *Otomys*, have long seemed to indicate that some subdivision of the genus would be advisable.